

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-2. (Canceled)

3. (Currently Amended) A computer system ~~according to Claim 2, further comprising~~ comprising:

a holding unit for holding pieces of data as processing objects and first characteristic values calculated based on the pieces of data while associating the pieces of data with the first characteristic values respectively;

a providing unit for accepting a received characteristic value as an information request for a piece of data as a processing object from a requester and selecting the piece of data associated with the received characteristic value from the pieces of data held by the holding unit to provide the piece of data to the requester;

an operation unit for calculating a characteristic value based on the basis of a piece of data as a processing object, wherein the operation unit divides the piece of data as a processing object into a sequence of data fragments each having a predetermined size, calculates second characteristic values based on the data fragments in accordance with the data fragments respectively, holds the data fragments and the second characteristic values in the holding unit while associating the data fragments with the second characteristic values respectively, generates a sequence of the second characteristic values corresponding to the sequence of data fragments, calculates at the characteristic value based on the sequence of the second characteristic values, and holds the sequence of the second characteristic values and the characteristic value calculated based on the sequence of characteristic values in the holding unit while associating the sequence of the second characteristic values with the characteristic value calculated based on the sequence of characteristic values.

4. (Currently Amended) A computer system according to Claim 3, wherein the operation unit calculates the characteristic value based on the sequence of characteristic values by a repetitive operation for respective characteristic values contained in the sequence of characteristic values ~~at the time at a time~~ of calculation of the characteristic value based on the sequence of characteristic values; and

when the sequence of characteristic values comprises N characteristic values, the operation unit holds a result of the repetitive operation for one to N-1 characteristic values in the holding unit.

5. (Currently Amended) A computer system ~~according to Claim 2, further comprising comprising:~~

a holding unit for holding pieces of data as processing objects and first characteristic values calculated based on the pieces of data while associating the pieces of data with the first characteristic values respectively;

a providing unit for accepting a received characteristic value as an information request for a piece of data as a processing object from a requester and selecting the piece of data associated with the received characteristic value from the pieces of data held by the holding unit to provide the piece of data to the requester;

an operation unit for calculating a characteristic value ~~based on the basis of a~~ piece of data as a processing object, wherein the operation unit divides the piece of data ~~as a processing object~~ into a sequence of data fragments each having a predetermined size, calculates ~~second~~ characteristic values based on the data fragments ~~in accordance with the data fragments respectively, compares the~~ ~~compares a size of each~~ ~~calculated of the second~~ characteristic ~~value-values~~ with the predetermined size, holds ~~the a~~ data fragment ~~per se~~ without an associated second characteristic value in the holding unit when the predetermined size is smaller than the size of the ~~calculated-associated second~~ characteristic value but holds

the data fragment and the associated second characteristic value ~~associatively~~ in the holding unit when the predetermined size is larger than the size of the associated calculated-second characteristic value, generates a second characteristic value-containing sequence corresponding to the sequence of data fragments, calculates ~~a-the~~ characteristic value based on the second characteristic value-containing sequence, and holds the second characteristic value-containing sequence and the characteristic value ~~calculated based on the characteristic value-containing sequence~~ in the holding unit while associating the second characteristic value-containing sequence with the characteristic value ~~calculated based on the characteristic value-containing sequence~~.

6. (Currently Amended) A computer system ~~according to Claim 2, comprising:~~  
a holding unit for holding pieces of data as processing objects and first characteristic values calculated based on the pieces of data while associating the pieces of data with the first characteristic values respectively; and  
a providing unit for accepting a received characteristic value as an information request for a piece of data as a processing object from a requester and selecting the piece of data associated with the received characteristic value from the pieces of data held by the holding unit to provide the piece of data to the requester;  
wherein the holding unit holds a characteristic value calculated ~~based on the basis of a~~ second characteristic value set containing at least one second characteristic value; and  
the providing unit provides respective second characteristic values contained in ~~a-the~~ second characteristic value set to the requester when ~~a-the received~~ characteristic value accepted as ~~information requesting an information request for~~ a piece of data as a processing object is associated with the second characteristic value set.

7. (Currently Amended) A computer system according to Claim 2, Claim 3, wherein the holding unit holds information for specifying a characteristic value calculation method in association with the characteristic value.

8. (Currently Amended) A computer system according to Claim 2, Claim 3, wherein the holding unit ~~holds the~~ holds a characteristic value containing information concerning a predetermined calculation state at a point of time of calculation of the characteristic value.

9. (Currently Amended) An information processing method, ~~comprising the steps of:~~ comprising:

holding pieces of data as processing objects and first characteristic values calculated based on the basis of the pieces of data while associating the pieces of data with the first characteristic values respectively; and

accepting a received characteristic value ~~as information requesting as an information request for~~ a piece of data as a processing object from a requester and selecting the piece of data associated with the ~~accepted received~~ characteristic value from the held pieces of data ~~so as to~~ provide the piece of data to the ~~requester~~ requester, wherein:

a characteristic value is calculated based on a piece of data as a processing object, the piece of data is divided into a sequence of data fragments each having a predetermined size, second characteristic values are calculated based on the data fragments respectively, the data fragments and the second characteristic values are held while associating the data fragments with the second characteristic values respectively, a sequence of second characteristic values corresponding to the sequence of data fragments is generated, the sequence of second characteristic values is held and the characteristic value is calculated based on the sequence of second characteristic values while associating the sequence of second characteristic values with the characteristic value.

10. (Currently Amended) A computer-readable storage medium including a program executed by a computer system, the program comprising:

a procedure for holding pieces of data as processing objects and first characteristic values calculated based on the basis of the pieces of data while associating the pieces of data with the first characteristic values respectively; and

a procedure for accepting a received characteristic value as an information requesting request for a piece of data as a processing object from a requester and selecting the piece of data associated with the accepted received characteristic value from the held pieces of data so as to provide the piece of data to the requester. requester, wherein:

a characteristic value is calculated based on a piece of data as a processing object, the piece of data is divided into a sequence of data fragments each having a predetermined size, second characteristic values are calculated based on the data fragments respectively, the data fragments and the second characteristic values are held while associating the data fragments with the second characteristic values respectively, a sequence of second characteristic values corresponding to the sequence of data fragments is generated, the sequence of second characteristic values is held and the characteristic value is calculated based on the sequence of second characteristic values while associating the sequence of second characteristic values with the characteristic value.

11. (New) The information processing method of Claim 9, further comprising holding information for specifying a characteristic value calculation method in association with the characteristic value.

12. (New) The information processing method of Claim 9, further comprising holding a characteristic value containing information concerning a predetermined calculation state at a point of time of calculation of the characteristic value.

13. (New) The computer-readable storage medium of Claim 10, the program further comprising:

a procedure for holding information for specifying a characteristic value calculation method in association with the characteristic value.

14. (New) The computer-readable storage medium of Claim 10, the program further comprising:

a procedure for holding a characteristic value containing information concerning a predetermined calculation state at a point of time of calculation of the characteristic value.